

## PATENT

What is claimed is:

1                   1. A wireless remote control, comprising:  
2                   a central processing unit  
3                   an infrared or radio frequency transmitter coupled to said central processing  
4                   unit;  
5                   a keyboard or other input device such as a touchscreen, touchpad, mouse,  
6                   joystick or other pointing device coupled to said central processing unit by which  
7                   users may select commands and enter data; and  
8                   a memory coupled to said central processing unit and storing at least one  
9                   computer program that controls said central processing unit to send remote control  
10                  commands selected by a user via said keyboard or other input device using said  
11                  transmitter.

1                   2. A wireless remote control, comprising:  
2                   a central processing unit;  
3                   a display coupled to said central processing unit;  
4                   an infrared or radio frequency transceiver coupled to said central processing  
5                   unit;  
6                   a keyboard or other input device such as a touchscreen, touchpad, mouse,  
7                   joystick or other pointing device coupled to said central processing unit by which  
8                   users may select commands and enter data; and  
9                   a memory coupled to said central processing unit and storing at least one  
10                  computer program that controls said central processing unit to send remote control  
11                  commands selected by a user via said keyboard or other input device using said  
12                  transmitter, said at least one computer program also controlling said central  
13                  processing unit to decompress any compressed video received by said transceiver and  
14                  display images encoded in said decompressed data on said display, said memory also  
15                  acting as a frame buffer for digital data to be displayed on said display.

1                   3. A wireless remote control comprising:

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2 a personal digital assistant having a host processor, a display, a user input  
3 device for receiving commands and/or text input, and audio input/output circuitry,  
4 and with an expansion port or slot with an expansion bus therein, and memory;

5 a wireless transceiver expansion card engaged with said expansion bus and  
6 mechanically supported by said expansion port or slot for transmitting data to and  
7 receiving data from another wireless transceiver;

8 and wherein said memory stores an operating system and one or more  
9 programs to control said host processor to act as a remote control for a gateway.

1 4. The apparatus of claim 3 wherein said memory includes an area reserved as a  
2 frame buffer and is further programmed with one or more programs that control said host  
3 processor to receive compressed video streams and decompress them to uncompressed video  
4 data and for converting said uncompressed video data to a format suitable for display on said  
5 display and storing said data in said frame buffer and displaying said data on said display.

1 5. The apparatus of claim 3 wherein said memory is further programmed with one  
2 or more programs to control said host computer to act as a wireless web browser.

1 6. The apparatus of claim 3 wherein said memory is further programmed with one  
2 or more programs to control said host computer to enable said wireless remote control to  
3 control smart household appliances coupled to a local area network to which said remote  
4 control is coupled by said transceiver.

1 7. The apparatus of claim 3 wherein said memory is further programmed with one  
2 or more programs to control said host computer to enable said wireless remote control to  
3 control and invoke TIVO functions implemented by a gateway and/or headend by wireless  
4 communication to a gateway.

1 8. The apparatus of claim 3 wherein said personal digital assistant further  
2 comprises audio input and output circuitry, and wherein said memory is further  
3 programmed with one or more programs to control said host computer to enable said

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4 wireless remote control to send wireless commands to retrieve MP3 files from an MP3  
5 server in a gateway and to play said MP3 files.

1 9. The apparatus of claim 3 wherein said personal digital assistant further  
2 comprises audio input and output circuitry, and wherein said memory is further  
3 programmed with one or more programs to control said host computer to enable said  
4 wireless remote control to act as a wireless telephone to carry out IP telephony.

1 10. The apparatus of claim 3 wherein said personal digital assistant further  
2 comprises audio input and output circuitry, and wherein said memory is further  
3 programmed with one or more programs to control said host computer to enable said  
4 wireless remote control to act as a cellular telephone by transmitting data packets to a  
5 gateway for routing to a cellular transceiver in radio contact with a cellular network.

1 11. The apparatus of claim 3 wherein said memory is further programmed with one  
2 or more programs to control said host computer to enable said host computer to perform  
3 calendar and/or address book functions and to perform word processing and/or database  
4 functions.

1 12. The apparatus of claim 33 wherein said memory is further programmed with  
2 one or more programs that control said host processor to carry out a wireless discovery  
3 process to determine what types of servers are in a gateway or headend coupled to said  
4 remote control and the IP addresses of said servers.